



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,067	06/24/2003	Katsuyoshi Hiraki	1324.68111	8618

7590 08/24/2006

Patrick G. Burns, Esq.  
GREER, BURNS & CRAIN, LTD.  
Suite 2500  
300 South Wacker Dr.  
Chicago, IL 60606

EXAMINER

SHANKAR, VIJAY

ART UNIT	PAPER NUMBER
----------	--------------

2629

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/603,067	<b>Applicant(s)</b> HIRAKI ET AL.	
	<b>Examiner</b> VIJAY SHANKAR	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 27-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8,11-14,16,17,20,21,23 and 24 is/are rejected.
- 7) ☒ Claim(s) 3,4,9,10,15,18,19,22,25 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5-8, 11-14, 16-17, 20-21, 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogino et al (5,398,040).

Regarding Claims 1,7, 13,16,20,23, Ogino et al teaches a driving method of a liquid crystal display device, comprising: a detection step of detecting a change of a vertical scanning frequency or a horizontal scanning frequency (Figures 1-6; Summary; Column 2, line 3- Col. 3, line 66; Col.5, line 1-49); and an output step of outputting, when the change of the vertical scanning frequency or the horizontal scanning frequency is detected at the detection step, a gate-on voltage or a common voltage

Art Unit: 2629

corresponding to the change. (Figures 1-6; Summary; Column 2, line 3- Col. 3, line 66; Col.5, line 1-49).

Regarding Claims 2,8,14,17,21,24, Ogino et al teaches a driving method of a liquid crystal display device wherein at the detection step, it is judged whether the vertical scanning frequency or the horizontal scanning frequency exceeds a predetermined threshold value. (Figures 2,6; Column 5, line 8-35).

Regarding Claim 5, Ogino et al teaches a driving method of a liquid crystal display device wherein at the output step, the gate-on voltage is generated in accordance with the change of the vertical scanning frequency or the horizontal scanning frequency. (Figures 1-6; Summary; Column 2, line 3- Col. 3, line 66; Col.5, line 1-49)

Regarding Claims 6 and 11-12, Ogino et al teaches a driving method of a liquid crystal display device further comprising a step of, when the change of the vertical scanning frequency or the horizontal scanning frequency is detected at the detection step, outputting a common voltage corresponding to the detected change. (Figures 1-6; Summary; Column 2, line 3- Col. 3, line 66; Col.5, line 1-49)

3. Claims 3-4, 9-10, 15, 18, 19, 22, 25-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is an examiner's statement of reasons for allowance: The prior arts fails to teach a driving method of a liquid crystal display device wherein at the output step, when it is judged at the detection step that the vertical scanning frequency or the horizontal scanning frequency exceeds the predetermined threshold value, a high gate-on voltage as compared with a case where the vertical scanning frequency or the horizontal scanning frequency is the predetermined threshold value or lower is outputted as claimed in Claim 3.

The prior arts fails to teach a driving method of a liquid crystal display device wherein at the detection step, it is judged whether the vertical scanning frequency or the horizontal scanning frequency exceeds a first threshold value, and when it is judged that the vertical scanning frequency or the horizontal scanning frequency exceeds the first threshold value, it is judged whether the vertical scanning frequency or the horizontal scanning frequency falls below a second threshold value as claimed in Claim 4.

The prior arts fails to teach a drive control circuit of a liquid crystal display device wherein the detection circuit comprises: a first judgment circuit for judging whether the ambient temperature exceeds a first threshold value; and a second judgment circuit for judging, when it is judged that the ambient temperature exceeds the

Art Unit: 2629

first threshold value, whether the ambient temperature falls below a second threshold value as claimed in Claim 25.

The prior arts fails to teach a drive control circuit of a liquid crystal display device wherein the output circuit outputs a first common voltage when the first judgment circuit judges that the ambient temperature exceeds the first threshold value, and outputs a second common voltage lower than the first common voltage when the second judgment circuit judges that the ambient temperature falls below the second threshold value as claimed in Claim 26.

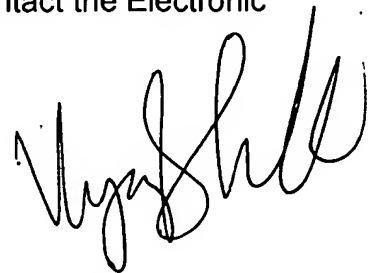
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Applicant's arguments with respect to Claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIJAY SHANKAR whose telephone number is (571) 272-7682. The examiner can normally be reached on M-F 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BIPIN SHALWALA can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



VIJAY SHANKAR  
Primary Examiner  
Art Unit 2673

VS